

# 4

## Plan Your Search

**1. Review a clinical scenario and PICO question.** Use the provided example, or generate your own. You'll also use this scenario for activities in sections 5 and 6.

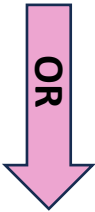
- Provided Example:** You have a patient with dysphagia secondary to stroke who lives in a remote area and has limited access to transportation. Because of her diagnosis, she needs periodic assessment of her swallowing safety.  
**PICO Question:** How feasible is remote dysphagia assessment compared to in-person assessment for adults with dysphagia secondary to stroke?


- OR -

- Generate your own scenario:** \_\_\_\_\_

**PICO Question:** \_\_\_\_\_

**2. Identify each PICO element in your selected question, and generate related keywords.** Remember, PICO questions may not have all four components.

	Population	Intervention	Comparison	Outcome
	Keywords			
	Related Keywords			



**3. Create a Search String.** Use your PICO elements, related keywords, and Boolean Operators (AND, OR). You can use more keywords to narrow your search, or you can use fewer keywords to broaden your search. Visit [“How to Search for Evidence in Communication Sciences and Disorders”](#) for a detailed description.

*Example search:* adult AND (“traumatic brain injury” OR “TBI”) AND (“cognitive training” OR “cognitive therapy” OR “cognitive rehabilitation”) AND (“cognition” OR “attention” OR “memory”)

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**Need help?** See [“Frame Your Clinical Question,”](#) refer to the “Resource List” in this course’s Activity Handouts section, or email us at [ncep@asha.org](mailto:ncep@asha.org).

# 5

## Search for External Scientific Evidence

**Conduct a search using your selected PICO question.** Follow the steps below to locate one article that is relevant to your selected clinical question. This study will be used for the next activity.

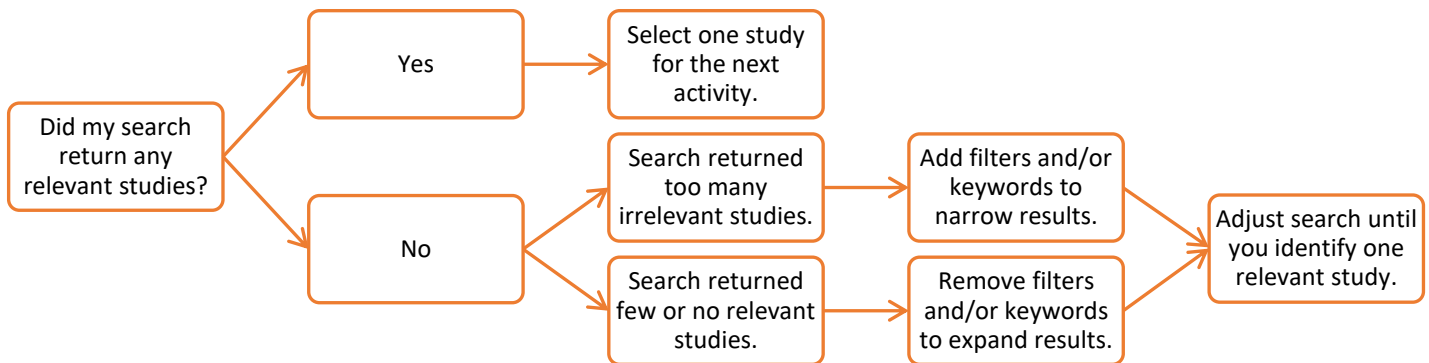
### 1. Select a database:

- PubMed** – Use your search string and the “Free full text” filter
- ASHA’s Evidence Maps** – Select an Evidence Map topic and filter *or* use a keyword search and filter

**2. Consider research design.** Your clinical question determines the study design that provides the most relevant evidence. You may apply filters for research design to improve your search results. See “[Which Research Design Should You Find?](#)” in [ASHA’s EBP Toolkit](#) for more information.

*Ideal study design(s) for my question:* \_\_\_\_\_  
\_\_\_\_\_

**3. Conduct a search to locate research.** Use the search string from the previous activity. Add filters (e.g., research design, date range) to narrow your search. Adjust your keywords, search string, and filters as needed. Follow the flowchart for assistance.



**Search Notes.** List the keywords and filters that you added, removed, or modified to refine your search:

*Keywords:* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Filters:* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### 4. Select one relevant study.

Note the article citation:  
\_\_\_\_\_  
\_\_\_\_\_

**Need help?** Review example search results in [PubMed](#) or [ASHA’s Evidence Maps](#), learn more about how to “[Gather Evidence](#),” or refer to the “[Resource List](#)” in this course’s Activity Handouts section. Email us at [ncep@asha.org](mailto:ncep@asha.org) with questions or comments.

# 6

# Assess the Evidence, and Make a Clinical Decision

**1. Assess the article’s relevance, quality, and trustworthiness.** Review the characteristics of the study found in the previous activity. Questions to ask may include:

- Were the participants representative of the clinical population of interest? Yes No
- How large was the sample size? Yes No N/A
- Were subjects randomly assigned to the intervention and control groups? Yes No N/A
- Were the assessors and/or clinicians masked to the treatment condition? Yes No N/A
- Were assessment outcomes compared to a gold-standard assessment? Yes No N/A
- What are the study’s limitations and potential sources of bias?

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**2. Review the study’s results and conclusions.**

- What are the main findings, outcomes, or conclusions?
- Did the authors note any adverse effects, client perspectives, or additional considerations that may impact this study’s relevance to your clinical scenario?
- Is this information strong enough to make a clinical decision?

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**3. Make a clinical decision.** Integrate the three components of EBP.

- How does this external scientific evidence, your clinical expertise, and/or the expertise of other professionals—and details about the client's perspectives—shape how you will apply these findings?

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**4. Develop an assessment/treatment plan for your scenario.** Include aspects of service delivery (e.g., timing, dosage, frequency, setting, format, provider), information about how to monitor the client’s progress, and a schedule for reviewing whether to continue or adjust the plan.

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**Need help?** See “[Assess the Evidence](#)” and “[Make Your Clinical Decision](#),” refer to the “Resource List” in this course’s Activity Handouts section, or email us at [ncep@asha.org](mailto:ncep@asha.org).

# Evidence-Based Practice: Resource List

## Explore ASHA Evidence-Based Practice (EBP) Tools and Resources

### Learn More About EBP Basics

- [ASHA Evidence-Based Practice \(EBP\) Homepage](#)
- [ASHA EBP Process](#)
- [ASHA EBP Toolkit](#)

### Take a Deeper Dive into EBP Concepts

- [Bias, Appraisal Tools, and Levels of Evidence](#)
- [How to Search for External Evidence in Communication Sciences and Disorders \(CSD\)](#)
- [Statistics Refresher](#)
- [Understanding Research Designs and External Scientific Evidence](#)

### Printable EBP Worksheets

- [Create a PICO Question \[PDF\]](#)
- [Create a Search String \[PDF\]](#)
- [Track Your Results \[PDF\]](#)

### Printable EBP Reference Information

- [Finding Free-Access Research \[PDF\]](#)
- [Identify Biases \[PDF\]](#)
- [Study Design Features \[PDF\]](#)
- [The DECIDE Framework \[PDF\]](#)
- [Which Research Design Should You Find? \[PDF\]](#)

### Additional ASHA Tools and Resources

- [ASHA Evidence Maps](#)
- [ASHA Practice Policy Documents](#)
- [ASHA Practice Portal Pages](#)
  - [Cultural Responsiveness Practice Portal Page](#)
- [ASHAWire](#)

### Other Resources Mentioned in This Course

This list of resources is not exhaustive, and the inclusion of any specific resource does not imply endorsement from ASHA.

### Research Databases

- [Cochrane Library](#)
- [ERIC – Education Resources Information Center](#)
- [PubMed](#)

### Appraisal Tools

- [AGREE II](#)
- [CASP Checklists](#)

Questions or feedback about EBP? Email us at [ncep@asha.org](mailto:ncep@asha.org).